



Waste Management of Hawaii, Inc.
 92-460 Farrington Highway
 Kapolei, Hawaii 96707
 808-668-2985

VIA US. MAIL & E-MAIL

U.S. Environmental Protection Agency
 75 Hawthorne Street
 San Francisco, CA 94105
 Attn: Lawrence Torres (WTR-7)

Hawaii Department of Health
 Clean Water Branch
 P.O. Box 3378
 Honolulu, HI 96801-3378
 Attn: Scott Miyashiro

**RE: Issuance of Findings of Violation and Order for Compliance for Waimanalo
 Gulch Sanitary Landfill — CWA-309(a)-12-003
 Monthly Report of Stormwater Sampling and Analysis — August 2015**

Dear Sirs:

Pursuant to Paragraph 15 of the November 29, 2011, Finding of Violation and Order ("Order") in the above referenced matter, Waste Management of Hawaii, Inc. ("WMH") is hereby submitting its monthly report for August 2015 of all sampling and analysis required by Paragraphs 12-14. The following table summarizes the information required.

Dates of discharges from the WGS� or detention basin	Did representative sampling and analysis of the discharges occur?	Analytical report attached?
August 24, 2015	Yes	Yes

I certify under penalty of law that this document and all attachments (if any) were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations.

Sincerely,

Damon De Frates
 Waste Management of Hawaii, Inc

cc: via e-mail only
 David Wampler — EPA Region 9
 Dana Viola — City & County of Honolulu
 File

ANALYTICAL REPORT

Job Number: 280-73538-2

Job Description: 995|Waimanalo Gulch LF

For:

Waste Management
BU1046-Kirby Canyon RDF
PO BOX 1870
Morgan Hill, CA 95038
Attention: Mr. Edward Pettit



Approved for release.
Betsy A Sara
Project Manager II
9/18/2015 4:14 PM

Betsy A Sara, Project Manager II
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0189
betsy.sara@testamericainc.com
09/18/2015

cc: Mr. Mark Hofferbert
Ms. Margie Thach

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com



CASE NARRATIVE

Client: Waste Management

Project: 995|Waimanalo Gulch LF

Report Number: 280-73538-2

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

This report may include reporting limits (RLs) less than TestAmerica's standard reporting limit. The reported sample results and associated reporting limits are being used specifically to meet the needs of this project. Note that data are not normally reported to these levels without qualification because they are inherently less reliable and potentially less defensible than required by the latest industry standards.

Sample Receiving

The sample was received on 08/27/2015; the sample arrived in good condition, properly preserved and on ice. The temperatures of the cooler at receipt were 1.6°C and 5.9°C.

Holding Times

Method 218.6 requires samples to be preserved to a pH in the range of 9.3-9.7. The sample WGSL-DB01E / WGSL-DB01W was preserved by TA Honolulu to a pH of 9.41 on 8/24/15, however TA Irvine recorded a pH value of 9.24 on 9/3/15. The sample was further preserved to the appropriate pH in the laboratory and data was flagged with H qualifier. The client was notified.

All other holding times were met.

Method Blanks

All Method Blanks were within established control limits.

Laboratory Control Samples (LCS)

All Laboratory Control Samples were within established control limits.

Matrix Spike (MS) and Matrix Spike Duplicate (MSD)

The method required MS/MSD could not be performed for Method 625 and Method 1664A due to insufficient sample volume, however, LCS/LCSD pairs were analyzed to demonstrate method precision and accuracy.

The percent recoveries and/or relative percent difference of the MS/MSD performed on a sample from another client were outside control limits for Total Iron Method 200.7 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Total Mercury Method 245.1. In addition, the RPD result was outside the RPD limit for Total Mercury. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Ammonia Method 350.1. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

The Matrix Spikes and Matrix Spike Duplicates performed on samples from other clients exhibited recoveries outside control limits for Total Kjeldahl Nitrogen (TKN) Method 351.2. Because the corresponding Laboratory Control Samples and the Method Blank samples were within control limits, these anomalies may be due to matrix interference and no corrective action was taken.

The percent recoveries and/or relative percent difference of the MS/MSD performed on sample WGSL-DB01E / WGSL-DB01W were outside control limits for Total Phosphorus Method 365.1 because the sample concentration was greater than four times the spike amount. Because the corresponding Laboratory Control Sample and the Method Blank sample were within control limits, no corrective action was taken.

EXECUTIVE SUMMARY - Detections

Client: Waste Management

Job Number: 280-73538-2

Lab Sample ID Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-73538-2	WGSL-DB01E / WGSL-DB01W					
Mercury		0.00011	J ^	0.00020	mg/L	245.1
Ammonia		0.022	J	0.10	mg/L	350.1
Nitrogen, Kjeldahl		1.2		0.50	mg/L	351.2
Nitrate Nitrite as N		2.5		0.10	mg/L	353.2
Phosphorus, Total		2.7		0.050	mg/L	365.1
Chemical Oxygen Demand		43		20	mg/L	410.4
Total Suspended Solids		610		14	mg/L	SM 2540D
Nitrogen, Total		3.7		0.10	mg/L	Total Nitrogen
Total Recoverable						
Cadmium		0.0013	J	0.0050	mg/L	200.7 Rev 4.4
Iron		46		0.10	mg/L	200.7 Rev 4.4
Lead		0.020		0.0090	mg/L	200.7 Rev 4.4
Selenium		0.0052	J	0.015	mg/L	200.7 Rev 4.4
Zinc		0.16		0.020	mg/L	200.7 Rev 4.4

METHOD / ANALYST SUMMARY

Client: Waste Management

Job Number: 280-73538-2

Method	Analyst	Analyst ID
40CFR136A 625	Hoefler, Alexandra F	AFH
EPA 200.7 Rev 4.4	Trudell, Lynn-Anne M	LMT
EPA 245.1	Kelly, Cara M	CMK
1664A 1664A	Shiring, Amy R	ARS
MCAWW 350.1	Lawrence, Caitlyn M	CML
MCAWW 351.2	Woolley, Mark -	MW1
MCAWW 353.2	Newcome, Robin S	RSN
EPA 365.1	Schwemin, Andrew J	AJS
MCAWW 410.4	Jewell, Connie C	CCJ
SM SM 2540D	Woolley, Mark -	MW1
EPA Total Nitrogen	Allen, Andrew J	AJA
EPA 218.6	Welch, Raquel	RW

Lab ID: 12345678

Client: ABC Company

Sample ID	Test Name	Result	Reference Range
101	Cholesterol	180 mg/dL	120-200 mg/dL
102	Triglycerides	150 mg/dL	100-150 mg/dL
103	HDL Cholesterol	40 mg/dL	40-60 mg/dL
104	LDL Cholesterol	120 mg/dL	100-130 mg/dL
105	Fasting Glucose	100 mg/dL	70-100 mg/dL
106	Hemoglobin A1c	5.6%	4.0-5.6%
107	BUN	10 mg/dL	7-20 mg/dL
108	Creatinine	1.2 mg/dL	0.7-1.3 mg/dL
109	ALT	25 U/L	7-40 U/L
110	AST	20 U/L	10-40 U/L

SAMPLE RESULTS

Analytical Data

Client: Waste Management

Job Number: 280-73538-2

Client Sample ID: WGS�-DB01E / WGS�-DB01W

Lab Sample ID: 280-73538-2

Date Sampled: 08/24/2015 0940

Client Matrix: Water

Date Received: 08/27/2015 0940

218.6 Chromium, Hexavalent (Ion Chromatography)-Dissolved

Analysis Method:	218.6	Analysis Batch:	440-277989	Instrument ID:	IC-22
	N/A	Prep Batch:	N/A	Lab File ID:	440-0062518-016.d
Dilution:	1.0			Initial Weight/Volume:	5 mL
Analysis Date:	09/03/2015 2104			Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	1000 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Chromium, hexavalent	ND	H	0.25	1.0

Analytical Data

Client: Waste Management

Job Number: 280-73538-2

General Chemistry

Client Sample ID: **WGSL-DB01E / WGSL-DB01W**

Lab Sample ID: 280-73538-2

Client Matrix: Water

Date Sampled: 08/24/2015 0940

Date Received: 08/27/2015 0940

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
HEM	ND		mg/L	1.7	5.0	1.0	1664A
	Analysis Batch: 280-294576		Analysis Date: 09/11/2015 2243				
	Prep Batch: 280-294542		Prep Date: 09/11/2015 1703				
Ammonia	0.022	J	mg/L	0.022	0.10	1.0	350.1
	Analysis Batch: 280-293226		Analysis Date: 09/01/2015 2029				
Nitrogen, Kjeldahl	1.2		mg/L	0.18	0.50	1.0	351.2
	Analysis Batch: 280-294572		Analysis Date: 09/11/2015 1924				
	Prep Batch: 280-294405		Prep Date: 09/10/2015 1934				
Nitrate Nitrite as N	2.5		mg/L	0.019	0.10	1.0	353.2
	Analysis Batch: 280-294191		Analysis Date: 09/09/2015 1543				
Phosphorus, Total	2.7		mg/L	0.025	0.050	5.0	365.1
	Analysis Batch: 280-293174		Analysis Date: 09/01/2015 1809				
	Prep Batch: 280-293112		Prep Date: 09/01/2015 1329				
Chemical Oxygen Demand	43		mg/L	4.1	20	1.0	410.4
	Analysis Batch: 280-292918		Analysis Date: 08/31/2015 0945				
Total Suspended Solids	610		mg/L	14	14	1.0	SM 2540D
	Analysis Batch: 280-292749		Analysis Date: 08/28/2015 1622				
Nitrogen, Total	3.7		mg/L	0.042	0.10	1.0	Total Nitrogen
	Analysis Batch: 280-295143		Analysis Date: 09/16/2015 1125				

QUALITY CONTROL RESULTS

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-293170					
LCS 280-293170/2-A	Lab Control Sample	R	Water	200.7	
MB 280-293170/1-A	Method Blank	R	Water	200.7	
280-73538-2	WGSL-DB01E / WGSL-DB01W	R	Water	200.7	
280-73540-F-1-B MS	Matrix Spike	R	Water	200.7	
280-73540-F-1-C MSD	Matrix Spike Duplicate	R	Water	200.7	
Analysis Batch: 280-293461					
LCS 280-293170/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-293170
MB 280-293170/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-293170
280-73538-2	WGSL-DB01E / WGSL-DB01W	R	Water	200.7 Rev 4.4	280-293170
280-73540-F-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-293170
280-73540-F-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-293170
Analysis Batch: 280-293766					
LCS 280-293170/2-A	Lab Control Sample	R	Water	200.7 Rev 4.4	280-293170
MB 280-293170/1-A	Method Blank	R	Water	200.7 Rev 4.4	280-293170
280-73538-2	WGSL-DB01E / WGSL-DB01W	R	Water	200.7 Rev 4.4	280-293170
280-73540-F-1-B MS	Matrix Spike	R	Water	200.7 Rev 4.4	280-293170
280-73540-F-1-C MSD	Matrix Spike Duplicate	R	Water	200.7 Rev 4.4	280-293170
Prep Batch: 280-294320					
LCS 280-294320/2-A	Lab Control Sample	T	Water	245.1	
MB 280-294320/1-A	Method Blank	T	Water	245.1	
280-73538-2	WGSL-DB01E / WGSL-DB01W	T	Water	245.1	
280-73838-B-1-K MS	Matrix Spike	T	Water	245.1	
280-73838-B-1-L MSD	Matrix Spike Duplicate	T	Water	245.1	
Analysis Batch: 280-294585					
LCS 280-294320/2-A	Lab Control Sample	T	Water	245.1	280-294320
MB 280-294320/1-A	Method Blank	T	Water	245.1	280-294320
280-73538-2	WGSL-DB01E / WGSL-DB01W	T	Water	245.1	280-294320
280-73838-B-1-K MS	Matrix Spike	T	Water	245.1	280-294320
280-73838-B-1-L MSD	Matrix Spike Duplicate	T	Water	245.1	280-294320

Report Basis

R = Total Recoverable

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 280-294405					
LCS 280-294405/1-A	Lab Control Sample	T	Water	351.2	
LCSD 280-294405/2-A	Lab Control Sample Duplicate	T	Water	351.2	
MB 280-294405/3-A	Method Blank	T	Water	351.2	
280-73497-D-1-B MS	Matrix Spike	T	Water	351.2	
280-73497-D-1-C MSD	Matrix Spike Duplicate	T	Water	351.2	
280-73538-2	WGSL-DB01E / WGSL-DB01W	T	Water	351.2	
Prep Batch: 280-294542					
LCS 280-294542/1-A	Lab Control Sample	T	Water	1664A	
LCSD 280-294542/2-A	Lab Control Sample Duplicate	T	Water	1664A	
MB 280-294542/3-A	Method Blank	T	Water	1664A	
280-73538-2	WGSL-DB01E / WGSL-DB01W	T	Water	1664A	
Analysis Batch:280-294572					
LCS 280-294405/1-A	Lab Control Sample	T	Water	351.2	280-294405
LCSD 280-294405/2-A	Lab Control Sample Duplicate	T	Water	351.2	280-294405
MB 280-294405/3-A	Method Blank	T	Water	351.2	280-294405
280-73497-D-1-B MS	Matrix Spike	T	Water	351.2	280-294405
280-73497-D-1-C MSD	Matrix Spike Duplicate	T	Water	351.2	280-294405
280-73538-2	WGSL-DB01E / WGSL-DB01W	T	Water	351.2	280-294405
Analysis Batch:280-294576					
LCS 280-294542/1-A	Lab Control Sample	T	Water	1664A	280-294542
LCSD 280-294542/2-A	Lab Control Sample Duplicate	T	Water	1664A	280-294542
MB 280-294542/3-A	Method Blank	T	Water	1664A	280-294542
280-73538-2	WGSL-DB01E / WGSL-DB01W	T	Water	1664A	280-294542
Analysis Batch:280-295143					
MB 280-295143/1	Method Blank	T	Water	Total Nitrogen	
280-73538-2	WGSL-DB01E / WGSL-DB01W	T	Water	Total Nitrogen	

Report Basis

T = Total

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Surrogate Recovery Report

625 Semivolatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	TBP %Rec	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec
280-73538-2	WGSL-DB01E / WGSL-DB01W	97	97	105	97	107	52
MB 280-292940/1-A		81	90	103	92	104	99
LCS 280-292940/2-A		102	95	102	98	106	104
LCSD 280-292940/3-A		99	96	106	102	107	102

Surrogate	Acceptance Limits
TBP = 2,4,6-Tribromophenol	16-147
FBP = 2-Fluorobiphenyl	43-120
2FP = 2-Fluorophenol	16-136
NBZ = Nitrobenzene-d5	52-120
PHL = Phenol-d5	11-145
TPH = Terphenyl-d14	10-145

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-292940

Method: 625

Preparation: 625

LCS Lab Sample ID: LCS 280-292940/2-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/08/2015 1718
 Prep Date: 08/31/2015 1325
 Leach Date: N/A

Analysis Batch: 280-293958
 Prep Batch: 280-292940
 Leach Batch: N/A
 Units: mg/L

Instrument ID: SMS_Y
 Lab File ID: Y5231.D
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 0.5 uL

LCSD Lab Sample ID: LCSD 280-292940/3-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/08/2015 1745
 Prep Date: 08/31/2015 1325
 Leach Date: N/A

Analysis Batch: 280-293958
 Prep Batch: 280-292940
 Leach Batch: N/A
 Units: mg/L

Instrument ID: SMS_Y
 Lab File ID: Y5232.D
 Initial Weight/Volume: 1000 mL
 Final Weight/Volume: 1 mL
 Injection Volume: 0.5 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
1,2,4-Trichlorobenzene	71	74	44 - 120	5	35		
1,2-Dichlorobenzene	70	76	32 - 120	8	42		
1,3-Dichlorobenzene	69	72	23 - 120	4	47		
1,4-Dichlorobenzene	69	73	24 - 120	5	49		
2,2'-Oxybis(1-chloropropane)	85	87	37 - 120	2	30		
2,4,6-Trichlorophenol	84	86	51 - 120	2	30		
2,4-Dichlorophenol	82	85	46 - 120	3	30		
2,4-Dimethylphenol	71	70	44 - 119	2	35		
2,4-Dinitrophenol	83	86	20 - 121	3	61		
2,4-Dinitrotoluene	90	89	57 - 120	2	35		
2,6-Dinitrotoluene	88	87	56 - 120	1	30		
2-Chloronaphthalene	79	79	60 - 118	1	30		
2-Chlorophenol	86	88	34 - 120	2	30		
2-Methylphenol	86	88	38 - 120	1	35		
2-Nitrophenol	83	85	47 - 120	2	30		
3,3'-Dichlorobenzidine	79	75	18 - 120	5	50		
4,6-Dinitro-2-methylphenol	87	87	40 - 120	0	55		
4-Bromophenyl phenyl ether	83	81	53 - 120	3	34		
4-Chloro-3-methylphenol	86	85	57 - 120	0	30		
4-Chlorophenyl phenyl ether	81	80	51 - 120	1	30		
4-Nitrophenol	90	90	53 - 120	1	42		
Acenaphthene	82	80	47 - 120	3	30		
Acenaphthylene	80	78	33 - 120	3	30		
Anthracene	85	82	52 - 120	3	30		
Benzidine	29	27	10 - 218	5	50		
Benzo[a]anthracene	91	89	54 - 120	2	30		
Benzo[a]pyrene	88	83	39 - 120	5	73		
Benzo[b]fluoranthene	90	89	51 - 120	1	90		
Benzo[g,h,i]perylene	88	87	48 - 120	1	64		
Benzo[k]fluoranthene	96	92	49 - 120	4	50		
Bis(2-chloroethoxy)methane	85	85	50 - 120	1	30		
Bis(2-chloroethyl)ether	86	87	35 - 120	2	30		
Bis(2-ethylhexyl) phthalate	90	91	56 - 120	0	30		
Butyl benzyl phthalate	90	89	53 - 120	0	30		
Chrysene	92	91	51 - 120	1	30		
Dibenz(a,h)anthracene	88	86	45 - 120	3	78		

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

**Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-292940**

**Method: 625
Preparation: 625**

LCS Lab Sample ID: LCS 280-292940/2-A Units: mg/L
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/08/2015 1718
 Prep Date: 08/31/2015 1325
 Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-292940/3-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/08/2015 1745
 Prep Date: 08/31/2015 1325
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
1,2,4-Trichlorobenzene	0.0800	0.0800	0.0565	0.0592
1,2-Dichlorobenzene	0.0800	0.0800	0.0562	0.0610
1,3-Dichlorobenzene	0.0800	0.0800	0.0549	0.0574
1,4-Dichlorobenzene	0.0800	0.0800	0.0554	0.0583
2,2'-Oxybis(1-chloropropane)	0.0800	0.0800	0.0680	0.0697
2,4,6-Trichlorophenol	0.0800	0.0800	0.0674	0.0689
2,4-Dichlorophenol	0.0800	0.0800	0.0656	0.0676
2,4-Dimethylphenol	0.0800	0.0800	0.0567	0.0557
2,4-Dinitrophenol	0.160	0.160	0.133	0.137
2,4-Dinitrotoluene	0.0800	0.0800	0.0723	0.0710
2,6-Dinitrotoluene	0.0800	0.0800	0.0706	0.0698
2-Chloronaphthalene	0.0800	0.0800	0.0628	0.0636
2-Chlorophenol	0.0800	0.0800	0.0684	0.0701
2-Methylphenol	0.0800	0.0800	0.0690	0.0700
2-Nitrophenol	0.0800	0.0800	0.0664	0.0678
3,3'-Dichlorobenzidine	0.0800	0.0800	0.0629	0.0601
4,6-Dinitro-2-methylphenol	0.160	0.160	0.139	0.139
4-Bromophenyl phenyl ether	0.0800	0.0800	0.0661	0.0644
4-Chloro-3-methylphenol	0.0800	0.0800	0.0686	0.0684
4-Chlorophenyl phenyl ether	0.0800	0.0800	0.0651	0.0641
4-Nitrophenol	0.160	0.160	0.144	0.143
Acenaphthene	0.0800	0.0800	0.0658	0.0640
Acenaphthylene	0.0800	0.0800	0.0642	0.0625
Anthracene	0.0800	0.0800	0.0679	0.0660
Benzidine	0.0800	0.0800	ND	ND
Benzo[a]anthracene	0.0800	0.0800	0.0727	0.0714
Benzo[a]pyrene	0.0800	0.0800	0.0703	0.0667
Benzo[b]fluoranthene	0.0800	0.0800	0.0722	0.0713
Benzo[g,h,i]perylene	0.0800	0.0800	0.0704	0.0697
Benzo[k]fluoranthene	0.0800	0.0800	0.0767	0.0738
Bis(2-chloroethoxy)methane	0.0800	0.0800	0.0677	0.0681
Bis(2-chloroethyl)ether	0.0800	0.0800	0.0684	0.0697
Bis(2-ethylhexyl) phthalate	0.0800	0.0800	0.0721	0.0724
Butyl benzyl phthalate	0.0800	0.0800	0.0717	0.0715
Chrysene	0.0800	0.0800	0.0736	0.0727
Dibenz(a,h)anthracene	0.0800	0.0800	0.0706	0.0688
Diethyl phthalate	0.0800	0.0800	0.0708	0.0689
Dimethyl phthalate	0.0800	0.0800	0.0688	0.0677
Di-n-butyl phthalate	0.0800	0.0800	0.0692	0.0679

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Method Blank - Batch: 440-277989

Method: 218.6
Preparation: N/A

Lab Sample ID: MB 440-277989/3	Analysis Batch: 440-277989	Instrument ID: IC-22
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 440-0062518-003.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 09/03/2015 0652	Units: ug/L	Final Weight/Volume:
Prep Date: N/A		Injection Volume: 1000 uL
Leach Date: N/A		

Analyte	Result	Qual	MDL	RL
Chromium, hexavalent	ND		0.25	1.0

Lab Control Sample - Batch: 440-277989

Method: 218.6
Preparation: N/A

Lab Sample ID: LCS 440-277989/2	Analysis Batch: 440-277989	Instrument ID: IC-22
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 440-0062518-002.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 09/03/2015 0640	Units: ug/L	Final Weight/Volume:
Prep Date: N/A		Injection Volume: 1000 uL
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium, hexavalent	50.0	49.1	98	90 - 110	

Method Reporting Limit Check - Batch: 440-277989

Method: 218.6
Preparation: N/A

Lab Sample ID: MRL 440-277989/6	Analysis Batch: 440-277989	Instrument ID: IC-22
Client Matrix: Water	Prep Batch: N/A	Lab File ID: 440-0062518-006.d
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 5 mL
Analysis Date: 09/03/2015 0915	Units: ug/L	Final Weight/Volume: 1.0 mL
Prep Date: N/A		Injection Volume: 1000 uL
Leach Date: N/A		

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Chromium, hexavalent	1.00	1.08	108	50 - 150	

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Method Blank - Batch: 280-293170

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID: MB 280-293170/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/02/2015 1940
 Prep Date: 09/02/2015 0830
 Leach Date: N/A

Analysis Batch: 280-293461
 Prep Batch: 280-293170
 Leach Batch: N/A
 Units: mg/L

Instrument ID: MT_026
 Lab File ID: 26b090215.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Arsenic	ND		0.0044	0.015
Cadmium	ND		0.00045	0.0050
Iron	ND		0.022	0.10
Lead	ND		0.0026	0.0090
Zinc	ND		0.0045	0.020
Silver	ND		0.00093	0.010

Method Blank - Batch: 280-293170

Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable

Lab Sample ID: MB 280-293170/1-A
 Client Matrix: Water
 Dilution: 1.0
 Analysis Date: 09/04/2015 1727
 Prep Date: 09/02/2015 0830
 Leach Date: N/A

Analysis Batch: 280-293766
 Prep Batch: 280-293170
 Leach Batch: N/A
 Units: mg/L

Instrument ID: MT_026
 Lab File ID: 26a090415.asc
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Selenium	ND		0.0049	0.015

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-293170**

**Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable**

MS Lab Sample ID: 280-73540-F-1-B MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/03/2015 0351
Prep Date: 09/02/2015 0830
Leach Date: N/A

Analysis Batch: 280-293461
Prep Batch: 280-293170
Leach Batch: N/A

Instrument ID: MT_026
Lab File ID: 26b090215.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-73540-F-1-C MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/03/2015 0354
Prep Date: 09/02/2015 0830
Leach Date: N/A

Analysis Batch: 280-293461
Prep Batch: 280-293170
Leach Batch: N/A

Instrument ID: MT_026
Lab File ID: 26b090215.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Arsenic	102	104	88 - 110	2	20		
Cadmium	97	100	88 - 111	3	20		
Iron	51	89	89 - 115	4	20	4	4
Lead	89	90	89 - 110	1	20		
Zinc	102	104	85 - 111	2	20		
Silver	106	110	85 - 115	4	20		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-293170**

**Method: 200.7 Rev 4.4
Preparation: 200.7
Total Recoverable**

MS Lab Sample ID: 280-73540-F-1-B MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/04/2015 1743
Prep Date: 09/02/2015 0830
Leach Date: N/A

Analysis Batch: 280-293766
Prep Batch: 280-293170
Leach Batch: N/A

Instrument ID: MT_026
Lab File ID: 26a090415.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-73540-F-1-C MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/04/2015 1746
Prep Date: 09/02/2015 0830
Leach Date: N/A

Analysis Batch: 280-293766
Prep Batch: 280-293170
Leach Batch: N/A

Instrument ID: MT_026
Lab File ID: 26a090415.asc
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Selenium	106	106	85 - 112	0	20		

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Method Blank - Batch: 280-294320

Method: 245.1
Preparation: 245.1

Lab Sample ID: MB 280-294320/1-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1728
Prep Date: 09/11/2015 1000
Leach Date: N/A

Analysis Batch: 280-294585
Prep Batch: 280-294320
Leach Batch: N/A
Units: mg/L

Instrument ID: MT_034
Lab File ID: 150911bb.txt
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	ND	^	0.000027	0.00020

Lab Control Sample - Batch: 280-294320

Method: 245.1
Preparation: 245.1

Lab Sample ID: LCS 280-294320/2-A
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1731
Prep Date: 09/11/2015 1000
Leach Date: N/A

Analysis Batch: 280-294585
Prep Batch: 280-294320
Leach Batch: N/A
Units: mg/L

Instrument ID: MT_034
Lab File ID: 150911bb.txt
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00500	0.00457	91	90 - 110	^

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-294320**

Method: 245.1
Preparation: 245.1

MS Lab Sample ID: 280-73838-B-1-K MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1749
Prep Date: 09/11/2015 1000
Leach Date: N/A

Analysis Batch: 280-294585
Prep Batch: 280-294320
Leach Batch: N/A

Instrument ID: MT_034
Lab File ID: 150911bb.txt
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 280-73838-B-1-L MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1751
Prep Date: 09/11/2015 1000
Leach Date: N/A

Analysis Batch: 280-294585
Prep Batch: 280-294320
Leach Batch: N/A

Instrument ID: MT_034
Lab File ID: 150911bb.txt
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Mercury	110	123	80 - 120	11	10	^	F1 ^ F2

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Method Blank - Batch: 280-294542

**Method: 1664A
Preparation: 1664A**

Lab Sample ID: MB 280-294542/3-A	Analysis Batch: 280-294576	Instrument ID: No Equipment Assigned
Client Matrix: Water	Prep Batch: 280-294542	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 09/11/2015 2243	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: 09/11/2015 1703		
Leach Date: N/A		

Analyte	Result	Qual	MDL	RL
HEM	ND		1.6	5.0

Lab Control Sample/

Lab Control Sample Duplicate Recovery Report - Batch: 280-294542

**Method: 1664A
Preparation: 1664A**

LCS Lab Sample ID: LCS 280-294542/1-A	Analysis Batch: 280-294576	Instrument ID: No Equipment Assigned
Client Matrix: Water	Prep Batch: 280-294542	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 09/11/2015 2243	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: 09/11/2015 1703		
Leach Date: N/A		

LCSD Lab Sample ID: LCSD 280-294542/2-A	Analysis Batch: 280-294576	Instrument ID: No Equipment Assigned
Client Matrix: Water	Prep Batch: 280-294542	Lab File ID: N/A
Dilution: 1.0	Leach Batch: N/A	Initial Weight/Volume: 1000 mL
Analysis Date: 09/11/2015 2243	Units: mg/L	Final Weight/Volume: 1000 mL
Prep Date: 09/11/2015 1703		
Leach Date: N/A		

Analyte	% Rec		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
HEM	101	95	78 - 114	6	18		

Laboratory Control/

Laboratory Duplicate Data Report - Batch: 280-294542

**Method: 1664A
Preparation: 1664A**

LCS Lab Sample ID: LCS 280-294542/1-A	Units: mg/L	LCSD Lab Sample ID: LCSD 280-294542/2-A
Client Matrix: Water		Client Matrix: Water
Dilution: 1.0		Dilution: 1.0
Analysis Date: 09/11/2015 2243		Analysis Date: 09/11/2015 2243
Prep Date: 09/11/2015 1703		Prep Date: 09/11/2015 1703
Leach Date: N/A		Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
HEM	40.0	40.0	40.5	38.1

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-293226**

**Method: 350.1
Preparation: N/A**

MS Lab Sample ID: 280-73564-C-7 MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/01/2015 1957
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-293226
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_Alp 3
Lab File ID: E:\FLOW_4\090115.RS
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 280-73564-C-7 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/01/2015 1959
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-293226
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_Alp 3
Lab File ID: E:\FLOW_4\090115.RS
Initial Weight/Volume: 10 mL
Final Weight/Volume: 10 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Ammonia	137	136	90 - 110	0	10	F1	F1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-293226**

**Method: 350.1
Preparation: N/A**

MS Lab Sample ID: 280-73564-C-7 MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/01/2015 1957
Prep Date: N/A
Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-73564-C-7 MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/01/2015 1959
Prep Date: N/A
Leach Date: N/A

Analyte	Sample		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
	Result/Qual					
Ammonia	0.033	J	1.00	1.00	1.40 F1	1.40 F1

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-294405**

**Method: 351.2
Preparation: 351.2**

MS Lab Sample ID: 280-73497-D-1-B MS
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1914
Prep Date: 09/10/2015 1934
Leach Date: N/A

Analysis Batch: 280-294572
Prep Batch: 280-294405
Leach Batch: N/A

Instrument ID: WC_Astoria
Lab File ID: 091115TKN.tab
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

MSD Lab Sample ID: 280-73497-D-1-C MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1915
Prep Date: 09/10/2015 1934
Leach Date: N/A

Analysis Batch: 280-294572
Prep Batch: 280-294405
Leach Batch: N/A

Instrument ID: WC_Astoria
Lab File ID: 091115TKN.tab
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrogen, Kjeldahl	86	87	90 - 110	1	25	F1	F1

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-294405**

**Method: 351.2
Preparation: 351.2**

MS Lab Sample ID: 280-73497-D-1-B MS Units: mg/L
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1914
Prep Date: 09/10/2015 1934
Leach Date: N/A

MSD Lab Sample ID: 280-73497-D-1-C MSD
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/11/2015 1915
Prep Date: 09/10/2015 1934
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrogen, Kjeldahl	ND	3.00	3.00	2.59 F1	2.61 F1

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-294191**

**Method: 353.2
Preparation: N/A**

MS Lab Sample ID: 280-73538-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/09/2015 1545
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-294191
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\090915.RS
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

MSD Lab Sample ID: 280-73538-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/09/2015 1547
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-294191
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_Alp 2
Lab File ID: C:\FLOW_4\090915.RS
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Nitrate Nitrite as N	95	96	90 - 110	0	10		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-294191**

**Method: 353.2
Preparation: N/A**

MS Lab Sample ID: 280-73538-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/09/2015 1545
Prep Date: N/A
Leach Date: N/A

Units: mg/L

MSD Lab Sample ID: 280-73538-2
Client Matrix: Water
Dilution: 1.0
Analysis Date: 09/09/2015 1547
Prep Date: N/A
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate Nitrite as N	2.5	4.00	4.00	6.29	6.32

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-293112**

**Method: 365.1
Preparation: 365.2/365.3/365**

MS Lab Sample ID: 280-73538-2 Units: mg/L
Client Matrix: Water
Dilution: 5.0
Analysis Date: 09/01/2015 1809
Prep Date: 09/01/2015 1329
Leach Date: N/A

MSD Lab Sample ID: 280-73538-2
Client Matrix: Water
Dilution: 5.0
Analysis Date: 09/01/2015 1809
Prep Date: 09/01/2015 1329
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Phosphorus, Total	2.7	0.500	0.500	3.09 4	3.18 4

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-292918**

**Method: 410.4
Preparation: N/A**

MS Lab Sample ID: 280-73537-D-1 MS
Client Matrix: Water
Dilution: 2.0
Analysis Date: 08/31/2015 0945
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-292918
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 280-73537-D-1 MSD
Client Matrix: Water
Dilution: 2.0
Analysis Date: 08/31/2015 0945
Prep Date: N/A
Leach Date: N/A

Analysis Batch: 280-292918
Prep Batch: N/A
Leach Batch: N/A

Instrument ID: WC_HACH SPEC
Lab File ID: N/A
Initial Weight/Volume: 100 mL
Final Weight/Volume: 100 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Chemical Oxygen Demand	98	94	90 - 110	2	11		

**Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 280-292918**

**Method: 410.4
Preparation: N/A**

MS Lab Sample ID: 280-73537-D-1 MS Units: mg/L
Client Matrix: Water
Dilution: 2.0
Analysis Date: 08/31/2015 0945
Prep Date: N/A
Leach Date: N/A

MSD Lab Sample ID: 280-73537-D-1 MSD
Client Matrix: Water
Dilution: 2.0
Analysis Date: 08/31/2015 0945
Prep Date: N/A
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Chemical Oxygen Demand	140	100	100	233	229

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Method Blank - Batch: 280-295143

Method: Total Nitrogen
Preparation: N/A

Lab Sample ID:	MB 280-295143/1	Analysis Batch:	280-295143	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/16/2015 1125	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrogen, Total	ND		0.042	0.10

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Laboratory Chronicle

Lab ID: MB

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P 625	MB 280-292940/1-A		280-293958	280-292940	08/31/2015 13:25	1	TAL DEN	MJM
A 625	MB 280-292940/1-A		280-293958	280-292940	09/08/2015 16:51	1	TAL DEN	AFH
A 218.6	MB 440-277989/3		440-277989		09/03/2015 06:52	1	TAL IRV	RW
P 200.7	MB 280-293170/1-A		280-293461	280-293170	09/02/2015 08:30	1	TAL DEN	SUR
A 200.7 Rev 4.4	MB 280-293170/1-A		280-293461	280-293170	09/02/2015 19:40	1	TAL DEN	LMT
P 200.7	MB 280-293170/1-A		280-293766	280-293170	09/02/2015 08:30	1	TAL DEN	SUR
A 200.7 Rev 4.4	MB 280-293170/1-A		280-293766	280-293170	09/04/2015 17:27	1	TAL DEN	LMT
P 245.1	MB 280-294320/1-A		280-294585	280-294320	09/11/2015 10:00	1	TAL DEN	CMK
A 245.1	MB 280-294320/1-A		280-294585	280-294320	09/11/2015 17:28	1	TAL DEN	CMK
P 1664A	MB 280-294542/3-A		280-294576	280-294542	09/11/2015 17:03	1	TAL DEN	ARS
A 1664A	MB 280-294542/3-A		280-294576	280-294542	09/11/2015 22:43	1	TAL DEN	ARS
A 350.1	MB 280-293226/112		280-293226		09/01/2015 19:53	1	TAL DEN	CML
P 351.2	MB 280-294405/3-A		280-294572	280-294405	09/10/2015 19:34	1	TAL DEN	MW1
A 351.2	MB 280-294405/3-A		280-294572	280-294405	09/11/2015 19:11	1	TAL DEN	MW1
A 353.2	MB 280-294191/105		280-294191		09/09/2015 15:41	1	TAL DEN	RSN
P 365.2/365.3/365.5	MB 280-293112/4-A		280-293174	280-293112	09/01/2015 13:29	1	TAL DEN	AJS
A 365.1	MB 280-293112/4-A		280-293174	280-293112	09/01/2015 17:43	1	TAL DEN	AJS
A 410.4	MB 280-292918/5		280-292918		08/31/2015 09:45	1	TAL DEN	CCJ
A SM 2540D	MB 280-292749/2		280-292749		08/28/2015 16:22	1	TAL DEN	MW1
A Total Nitrogen	MB 280-295143/1		280-295143		09/16/2015 11:25	1	TAL DEN	AJA

Quality Control Results

Client: Waste Management

Job Number: 280-73538-2

Laboratory Chronicle

Lab ID: MRL

Client ID: N/A

Sample Date/Time: N/A

Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A 218.6	MRL 440-277989/6		440-277989		09/03/2015 09:15	1	TAL IRV	RW
A.353.2	MRL 280-294191/20		280-294191		09/09/2015 12:51	1	TAL DEN	RSN

Lab ID: MS

Client ID: N/A

Sample Date/Time: 08/24/2015 09:25

Received Date/Time: 08/27/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A 218.6	280-73538-I-1 MS		440-277989		09/03/2015 20:40	1	TAL IRV	RW
P.200.7	280-73540-F-1-B MS		280-293461	280-293170	09/02/2015 08:30	1	TAL DEN	SUR
A 200.7 Rev 4.4	280-73540-F-1-B MS		280-293461	280-293170	09/03/2015 03:51	1	TAL DEN	LMT
P 200.7	280-73540-F-1-B MS		280-293766	280-293170	09/02/2015 08:30	1	TAL DEN	SUR
A 200.7 Rev 4.4	280-73540-F-1-B MS		280-293766	280-293170	09/04/2015 17:43	1	TAL DEN	LMT
P.245.1	280-73838-B-1-K MS		280-294585	280-294320	09/11/2015 10:00	1	TAL DEN	CMK
A 245.1	280-73838-B-1-K MS		280-294585	280-294320	09/11/2015 17:49	1	TAL DEN	CMK
A.350.1	280-73564-C-7 MS		280-293226		09/01/2015 19:57	1	TAL DEN	CML
P.351.2	280-73497-D-1-B MS		280-294572	280-294405	09/10/2015 19:34	1	TAL DEN	MW1
A.351.2	280-73497-D-1-B MS		280-294572	280-294405	09/11/2015 19:14	1	TAL DEN	MW1
A.410.4	280-73537-D-1 MS		280-292918		08/31/2015 09:45	2	TAL DEN	CCJ

Lab ID: MSD

Client ID: N/A

Sample Date/Time: 08/24/2015 09:25

Received Date/Time: 08/27/2015 09:40

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A.218.6	280-73538-I-1 MSD		440-277989		09/03/2015 20:52	1	TAL IRV	RW
P.200.7	280-73540-F-1-C MSD		280-293461	280-293170	09/02/2015 08:30	1	TAL DEN	SUR
A.200.7 Rev 4.4	280-73540-F-1-C MSD		280-293461	280-293170	09/03/2015 03:54	1	TAL DEN	LMT
P.200.7	280-73540-F-1-C MSD		280-293766	280-293170	09/02/2015 08:30	1	TAL DEN	SUR
A.200.7 Rev 4.4	280-73540-F-1-C MSD		280-293766	280-293170	09/04/2015 17:46	1	TAL DEN	LMT
P.245.1	280-73838-B-1-L MSD		280-294585	280-294320	09/11/2015 10:00	1	TAL DEN	CMK
A.245.1	280-73838-B-1-L MSD		280-294585	280-294320	09/11/2015 17:51	1	TAL DEN	CMK
A.350.1	280-73564-C-7 MSD		280-293226		09/01/2015 19:59	1	TAL DEN	CML
P.351.2	280-73497-D-1-C MSD		280-294572	280-294405	09/10/2015 19:34	1	TAL DEN	MW1
A.351.2	280-73497-D-1-C MSD		280-294572	280-294405	09/11/2015 19:15	1	TAL DEN	MW1
A.410.4	280-73537-D-1 MSD		280-292918		08/31/2015 09:45	2	TAL DEN	CCJ

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Honolulu
4429 Malaai St. #104
Honolulu, HI 96818
Tel: 808-486-5227

TestAmerica Job ID: HYH0076
Client Project/Site: [none]
Client Project Description: AECOM, WGSL STORMWATER

For:
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002

Attn: Betsy Sara



Authorized for release by:
9/11/2015 6:07:45 PM

Craig O. Piliialoha, Project Manager
808-486-5227
Craig.Piliialoha@testamericainc.com

LINKS

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The
Expert

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Definitions/Glossary

Client: TestAmerica Denver
Project/Site: [none]

TestAmerica Job ID: HYH0076

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Sample Summary

Client: TestAmerica Denver
Project/Site: [none]

TestAmerica Job ID: HYH0076

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
HYH0076-01	DB01-E	Water - NonPotable	08/24/15 09:40	08/24/15 11:56

TestAmerica Honolulu

Client Sample Results

Client: TestAmerica Denver
Project/Site: [none]

TestAmerica Job ID: HYH0076

Client Sample ID: DB01-E

Lab Sample ID: HYH0076-01

Date Collected: 08/24/15 09:40

Matrix: Water - NonPotable

Date Received: 08/24/15 11:56

Method: SM5210B - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
BOD - 5 Day	4.88		2.00		mg/L		08/24/15 20:03	08/29/15 16:51	1.00

TestAmerica Honolulu

QC Association Summary

Client: TestAmerica Denver
Project/Site: [none]

TestAmerica Job ID: HYH0076

WetChem

Analysis Batch: 15H0072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
15H0072-BLK1	Method Blank	Total	Water - NonPotable	SM5210B	15H0072_P
15H0072-BS1	Lab Control Sample	Total	Water - NonPotable	SM5210B	15H0072_P
15H0072-DUP1	Duplicate	Total	Water - NonPotable	SM5210B	15H0072_P
HYH0076-01	DB01-E	Total	Water - NonPotable	SM5210B	15H0072_P

Prep Batch: 15H0072_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
15H0072-BLK1	Method Blank	Total	Water - NonPotable	Default Prep GenChem	
15H0072-BS1	Lab Control Sample	Total	Water - NonPotable	Default Prep GenChem	
15H0072-DUP1	Duplicate	Total	Water - NonPotable	Default Prep GenChem	
HYH0076-01	DB01-E	Total	Water - NonPotable	Default Prep GenChem	

Certification Summary

Client: TestAmerica Denver
Project/Site: [none]

TestAmerica Job ID: HYH0076

Laboratory: TestAmerica Honolulu

All certifications held by this laboratory are listed. Not all certifications are applicable to this report

Authority	Program	EPA Region	Certification ID	Expiration Date
USDA	Federal		HON-S-206	01-31-18

1
2
3
4
5
6
7
8
9
1
1
1

Login Sample Receipt Checklist

Client: Waste Management

Job Number: 280-73538-2

Login Number: 73538

List Source: TestAmerica Irvine

List Number: 2

List Creation: 09/02/15 02:20 PM

Creator: Ornelas, Olga

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

**Storm Water Sampling Form
Waimanalo Gulch Sanitary Landfill
Storm Water Pollution Control Plan**

Sampling Location: DB01-E		Date: 8/24/15		
		Project Number: 60338427.03.01		
Sampling Personnel: AM, DD				
Weather Conditions: rainy				
Start date/time of the storm event: over night	End date/time of the storm event: on going	Duration since previous rainfall greater than 0.1 inches: > 3 days		
Observations/Comments:				
Instrument	Manufacturer	Model	Serial No.	Calibration Date and Time
pH Meter	Ecosense	PH10A	JL007629	8/24, 0900
Calibration results: 6.94 @ pH 7.0				
Comments:				
Time at Start of Rain: over night	Time of First Run-off: early morning			
Sample Collection Method: grab; composite				
Flow-Measurement Method: ruler				
Describe: measured flow over weir				
Sample Appearance: cloudy	Odor: none	Color: light brown		
Floating Debris: no	Scum or Foam: no	Oil Sheen: no		
SAMPLE NUMBER	TIME SAMPLED	pH	Temp (°C)	FLOW MEASUREMENTS (Incl. time) in.
A	0940	8.42	25.3	4"
B	0955	8.32	25.1	3.5"
C	1010	8.53	25.6	3.75"
D	1025	8.39	26.0	3.5"
Comments: <div style="margin-left: 40px;"> <u>Flow</u> A - 4" = 1.3 cfs B - 3.5" = 1.05 cfs C - 3.75" = 1.175 cfs D - 3.5" = 1.05 cfs </div>				